This "**Listing of Claims**" shall replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A software tool containing machine readable instructions stored on a physical medium for monitoring the behavior of a running computer program for code patterns that violate a given set of coding rules, the software tool comprising:

a pattern detector manager including machine readable instructions for inserting into a running computer program a plurality of entry breakpoints, automatically, with little or no intervention from a user, each of said entry breakpoints being associated with one of a plurality of defined coding patterns; and

a plurality of pattern detectors, each of the pattern detectors being associated with one of said defined coding patterns, including machine readable instructions, and being invoked by the pattern detector manager, after one of the entry breakpoints associated with the coding pattern associated with said each of the pattern detectors, is reached in the computer program, for determining whether the computer program violates the coding pattern associated with said each of the pattern detectors by inserting into the program at least one further breakpoint for identifying a respective step in the program that is part of the coding pattern associated with said one of the entry breakpoints;

wherein the plurality of defined coding patterns is selected from a group comprising best practice patterns and problematic coding patterns.

2. (Cancelled)

3. (Cancelled)

4. (Original) A tool according to Claim 1, for use with a debugger for debugging the computer program, and further including a launcher to invoke the pattern detector manager when the debugger is used to debug the program.

5. (Original) A tool according to Claim 1, wherein the pattern detector manager removes the entry breakpoints at specified times.

6. (Original) A tool according to Claim 3, wherein the pattern detector manager removes the entry breakpoints and the further breakpoints at specified times.

7. (Currently Amended) A tool according to Claim 1[[3]], wherein:

the pattern detector manager includes means for monitoring for the occurrences of the entry breakpoints; and

the pattern detector manager inserts said at least one further breakpoint into the computer program in response to the monitoring means detecting the occurrence of said one of the entry breakpoints.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Previously Presented) A method according to Claim 21, for use with a debugger for debugging the computer program, and further including the step of invoking the pattern detector manager when the debugger is used to debug the program.

12. (Previously Presented) A method according to Claim 21, wherein further including the step of removing the entry breakpoints at specified times.

13. (Cancelled)

14. (Cancelled)

15. (Currently Amended) A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for monitoring the behavior of a running computer program, said method steps comprising:

using a pattern detector manager to insert into a running computer program a plurality of entry breakpoints, each of said entry breakpoints being associated with one of a plurality of defined coding patterns, and monitoring to detect the occurrences of the entry breakpoints in the computer program, and upon detection of one of the entry breakpoints in the computer program, further inserting into the program at least one further breakpoint for identifying a respective step in the program that is part of the coding pattern associated with said one of the entry breakpoints; and

using a plurality of pattern detectors for monitoring the computer program, wherein each of the pattern detectors are associated with one of said defined coding patterns, including the step of the program detector manager invoking each of the pattern detectors, after one of the entry breakpoints associated with the coding pattern associated with said each of the pattern detectors, is reached in the computer program, for determining whether the computer program violates the coding pattern associated with said each of the pattern detectors.

16. (Cancelled)

17. (Original) A program storage device according to Claim 15, for use with a debugger for debugging the computer program, and wherein said method steps include the further step of invoking the pattern detector manager when the debugger is used to debug the program.

18. (Original) A program storage device according to Claim 15, wherein said method steps include the further step of removing the entry breakpoints at specified times.

19. (Original) A program storage device according to Claim 16, wherein said method steps include the further step of removing the entry breakpoints and the further breakpoints at specified times.

20. (Cancelled)

21. (Currently Amended) A method of detecting code patterns in a computer program that violate violates a given set of coding rules, the method comprising the steps of:

defining a set of coding rules, each coding rule of the set of the coding rules being associated with a respective one pattern detector of a set of pattern detectors;

providing a pattern detector manager for managing said pattern detectors;

providing a computer program, and running the computer program in [[as]] a debug mode;

the pattern detector manager identifying, during the running of the computer program in the debug mode, points in the computer program that relate to said coding rules, and

said pattern detector manager inserting into the computer program an entry breakpoint at each of said identified points;

said pattern detector manager invoking each of the pattern detectors to monitor the computer program for a violation of the coding rule associated with said each of the pattern detectors detector, including the step of:

each of the pattern detectors inserting one or more further breakpoints into the computer program to identify further points in the computer program that relate to the coding rule associated with said each of the pattern detectors detector, and

tracking said additional breakpoints to determine whether the computer program violates the coding rule associated with said each of the pattern detectors, wherein each of said additional breakpoints identifies a respective step in the computer program that is part of the coding pattern associated with said one of the entry breakpoints, and wherein each of the pattern detectors monitors the computer program for the occurrence of any one of the first set of defined conditions, the occurrence of which violates the coding rule associated with said each of the

pattern detectors and monitors the computer program for the non-occurrence of any one of a second set of defined conditions, the non-occurrence of which violates the coding rule associated with said each of the pattern detectors.

22.　　(Cancelled)